## UNITED STATES PATENT AND TRADEMARK OFFICE

## BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application 10/622,307

ON BRIEF

MAILED

JAN 2 0 2006

AS PATENT AND TRADEMARK OFFICE BOARD OF PATENT APPEALS AND INTERFERENCES

Before CAROFF, GARRIS and DELMENDO, <u>Administrative Patent Judges</u>.

CAROFF, <u>Administrative Patent Judge</u>.

This is a decision on appeal from the examiner's final rejection of claims 1-8. Claims 9-17, the only other claims in appellants' application, stand withdrawn from consideration by virtue of the imposition of a restriction requirement by the examiner. Accordingly, only claims 1-8 are before us on appeal.<sup>1</sup>

The appealed claims are directed to a method for cleaning a semiconductor wafer. The method includes a cleaning step in which a

<sup>&</sup>lt;sup>1</sup> We note in passing that the copy of the appealed claims in the Appendix to the brief is incomplete since claim 4 appears to have been omitted.

cleaning solution is applied to the wafer through a pair of rotating brushes. The method also includes a rinsing step in which, according to the specification, deionized water is sprayed at "the interface" between the rotating brushes and the wafer.

Appellants make no distinction between the individual claims in advocating for patentability. Accordingly, all of the claims are considered as standing or falling with independent claim 1 for purposes of this appeal. In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986).

Claim 1 reads as follows:

1. A method comprising: positioning a wafer between a pair of rotating brushes; providing a cleaning solution through at least one of said brushes; and spraying a solution at the interface between said rotating brushes and said wafer.

The examiner relies upon the following single prior art reference on appeal:

Mikhaylichenko et al (M) 6,733,596B1 May 11, 2004 (filing date: December 23, 2002).

The following rejection is before us for review:2

Claims 1-8 stand rejected under 35 U.S.C. §102(e) as being anticipated by M.

<sup>&</sup>lt;sup>2</sup> While claims 1-8 were also finally rejected under 35 U.S.C. §112, second paragraph, that rejection has been withdrawn by the examiner (examiner's answer: page 2).

We have carefully considered the evidentiary record in light of the opposing positions taken by the appellants and the examiner on appeal. Having done so, we shall affirm the examiner's rejection. The basis for our decision follows.

The sole issue before us relates to the question of whether M anticipates the limitation in claim 1 which requires "spraying a solution at the interface between said rotating brushes and said wafer".

There is no question that M discloses a method for cleaning a semiconductor wafer surface which, like appellants' method, involves a cleaning step (in which a cleaning or scrubbing solution is applied to the wafer surface through a pair of rotating brushes), and a rinsing step (in which a rinse fluid is sprayed onto the wafer surface). See M (Fig. 3C; col. 10, l.11 - col. 11, l.10).<sup>3</sup>

Thus, the fundamental issue in this case relates to the meaning of the expression "the interface" in claim 1.

Appellants would have us construe the expression narrowly to mean that the brushes and the wafer must be in contact during the spraying step. The examiner would have us apply a broader

 $<sup>^3</sup>$  It is evident, from the description in M, that in Fig. 3C the depicted stages of the process are actually offset with respect to times t0 - t4. For instance, the operation which occurs at time t1, as described, is depicted in the Figure under the heading "t2".

definition which would encompass the spray rinse step of M where the brushes are adjacent to, but spaced from, the wafer surface.

We construe "interface" in the broader sense for the following reasons.

Initially, we note that, in proceedings before the Patent and Trademark Office, application claims are given their broadest reasonable interpretation consistent with the specification. <u>In respect</u> Sneed, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983).

The instant specification does not appear to limit the ordinary definition of an "interface" or ascribe any special meaning to it.

Further, the dictionary definition cited in appellants' brief defines an "interface" as a surface forming a common boundary between adjacent regions, bodies, substances, or phases. In our opinion, this expansive definition certainly leaves room for an interface defined by a common boundary or region between adjacent bodies which are not actually touching or in direct contact, as in M. In this regard, we find the choice of the word "adjacent" in the cited definition to be of particular significance since, in common usage, "adjacent" does not necessarily connote that two bodies are touching or in direct contact; only that they are near one another.

Moreover, we observe that a patent may be likened to a contract. The contractual obligation of the patent applicant is to completely and precisely disclose his or her invention to the public

in return for exclusive rights to his or her intellectual property. The claims are of profound significance in both a legal and contractual sense since it is the claims, when read in light of the specification, that define the subject invention.

According to well-established principles of contract interpretation, it is incumbent upon the party who drafted the contractual language in question to ensure its clarity. Contractual language is ambiguous when it is fairly susceptible to more than one interpretation. Corpus Juris Secundum, Vol. 17A, "Contracts", §304 (West Group, 1999), p. 315. And, to the extent that a contract is ambiguous, it is to be construed strictly against the party who drafted the contract and who, therefore, is responsible for the ambiguity. 17A C.J.S., Contracts §337 (1999).

As we see it, contractual principles applied to the patent law mandate that claims be given their broadest reasonable interpretation and, further, where claim terminology is fairly susceptible to more than one interpretation even when read in light of the specification, that the construction be adopted which is less favorable to the party who drafted the language, namely the patent applicant.

Applying those principles here, we find that the appellants could have easily indicated in their claims that "the interface" refers to the boundary between the wafer and rotating brushes which

are <u>in contact</u> with the surface of the wafer, if that were appellants' intention. Since appellants did not do so, we interpret the claims as not requiring any direct contact between the wafer and the brushes during the spraying step. Thus, the claimed spraying step is anticipated by M at time "t4".

For each of the foregoing reasons, the decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR \$ 1.136(a)(1)(iv)(2004).

**AFFIRMED** 

MARC L. CAROFF

Administrative Patent Judge )

BRADLEY R. GARRIS

Administrative Patent Judge )

BOARD OF PATENT APPEALS AND

INTERFERENCES

ROMULO A. DELMENDO

Administrative Patent Judge )

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